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The use of computer technology for the storage and rapid retrieval of information about instructional media requires the development of nationally accepted guidelines or standards for catalog information and computer input. The Department of Audiovisual Instruction (DAVI) organized a task force to develop standards for cataloging educational media and coding standards for computerized cataloging and scheduling. In cataloging educational media certain information will be required from the computerized process. Standards are offered for the following elements of catalog entries for instructional materials: Title, Type of medium, Physical description, Maturity range of intended user, Content description, Year of production or release, Producer-sponsor-distributor, Subject headings, Classification and identification numbers, and Format. To facilitate information exchange between libraries and resource centers a coding system was recommended which allows for flexibility to accomodate future expansion and permits application to both manual and automated cataloging and scheduling procedures. Standards were written for an identification number incorporating a media code, storage code, year code, sequence number and a print/copy number. Other codes were developed for such elements as title, level, length, etc. (Author/JY)

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Standards for

CATALOGING, CODING and SCHEDULING EDUCATIONAL MEDIA

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STANDARDS FOR

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EDUCATIONAL MEDIA

1968

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INTRODUCTION

Rapid expansion in the field of instructional media has brought sharply increased responsibilities to those people concerned with the services which support the instructional program. The "ground swell" of interest in media, the veritable deluge of newly produced instructional materials, and the growing commitment to their effective use have focused attention on the need for new approaches and greater efficiency in all facets of media programs.

As a result of mounting pressures, personnel in instructional materials centers urgently seek new methods for the storage and rapid retrieval of information about media. They also need more efficient booking and scheduling systems for processing the requests of users. Fortunately, the increased dimension of today's task comes at a time when new tools to cope with it are available. In the larger centers, computer technology is being used for both cataloging and scheduling. The possibility of sharing, by means of the computer, a national pool of information about materials and the potential exchange of information among local, regional, and national resource centers are especially intriguing. The use of computer technology for these purposes, however, requires the development of nationally accepted guidelines or standards for catalog information and computer in-put.

In recognition of this need for standards, the Department of Audiovisual Instruction organized in 1966 a Task Force on Computerized Cataloging and Booking of Educational Media. Two groups of this Task Force were assigned responsibilities for developing (1) standards for cataloging educational media and (2) coding standards for computerized cataloging and scheduling. The work of these two groups is reported in this document.

Group I addressed itself to the question of what elements should be incorporated in catalog descriptions and how these elements should be expressed and arranged. Guidelines relating to the following items were developed: (1) title; (2) type of medium; (3) physical description; (4) maturity range; (5) content description; (6) year; (7) producer-sponsor-distributor; (8) subject headings; (9) classification numbers; (10) format.

Group I considered its task one of developing standards for the finished product (the printed catalog or card entries). Its concern was with the kind of information required from the computerizing process and not with the form of computer in-put.

Group II developed coding standards essential for establishing the compatibility needed to facilitate information exchange between libraries and resource centers. The coding system, designed by Group II, allows for flexibility to accomodate future expansion and to permit application to both manual and automated cataloging and scheduling procedures. Standards were written for an identification number incorporating a media code, storage code, year code, sequence number, and a print/copy number. Other codes were developed for such descriptive elements as title, level, length, producer/publisher, and physical specifications.

Since Group I and Group II worked independently, minor variations in designating types of media, maturity range, and physical description appear in their reports. However, the two reports are in most respects considered to be mutually reinforcing. Group I attempted to summarize what the field required in the reporting of information about media. Group II attempted to specify how some of this essential information can, or should be, conveniently coded for computerized storage and retrieval.

The development of standards on a national basis is extremely difficult, yet such standards would seem to be imperative if the field is to exploit fully the advantages of modern technology and meet its developing responsibilities in respect to instructional media. The content of this report should constitute a good beginning. Further refinement of this beginning can be accomplished by considered reaction from the field. Such "feed-back" from people working with instructional materials is invited and encouraged.

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GROUP I

Report of Committee on Standards for Cataloging Educational Media

Ford L. Lemler, Chairman

This report is an attempt to develop guidelines and standards for reporting information on instructional media to be incorporated into a computerized storage and retrieval system. The report summarizes the Committee's[1] thinking in regard to catalog entries for instructional materials and attempts to set standards for the following elements:

I. Title
II. Type of medium
III. Physical Description
IV. Maturity Range
V. Content Description
VI. Year
VII. Producer-Sponsor-Distributor
VIII. Subject Headings
IX. Classification and Identification Numbers
X. Format

---

[1]The Committee working on these guidelines includes:

Charles Boilmann, Instructional Media Center, Michigan State University
Katherine W. Clugston, Descriptive Cataloging Division, Library of Congress
Ford L. Lemler, Audio-Visual Education Center, University of Michigan
Glenn D. McMurry, Film Distribution, University of Southern California
Braxton Preston, Educational Products Information Exchange, New York City
William J. Quinly, Educational Media Center, Florida State University
Betty Stoops, Visual Aids Service, University of Illions
Burton A. Weekes, Film Rental Library, Syracuse University
Carolyn I. Whitenach, Educational Media, Purdue University

In its study, the Committee borrowed liberally from, and checked its judgments against, the references listed in the Bibliography.

I. TITLE

1. Official Title

The official title for catalog entries will be that title which appears on the material itself. Variations from this title which may at times be used in announcements, brochures, advertisements or producers' catalogs are considered to be inaccurate.

2. Subtitles

Frequently the main title is supplemented by a further explanatory subtitle. This subtitle should be included in the catalog entry. Again, the correct subtitle should be entered (insofar as possible) as it appears in the material including the producer's punctuation which separates main title from subtitle. If the producer has not indicated punctuation for this purpose, the main title should be separated from the subtitle by the use of a dash. In no case (even though the producer has done it) should parentheses be used for this purpose, since parentheses are to be used for other functions in the catalog entries. If the subtitle has several parts, these parts will be separated by semicolons.

Examples

Bamboo: Plant of a Thousand Uses (Punctuation of Producer)
Gravity - How It Affects Us (No punctuation in film)
Percent - Why and How (No punctuation in film)
Contemporary Scandinavia - Common Purposes; Individual Differences (No punctuation by Producer)
First Men Into Space - Solving the Space Survival Problems (Producer used parentheses)

3. Parts

The word "part," when used in a title, should be abbreviated "Pt." and followed by an Arabic numeral.

Examples

The Fluid Dynamics of Drag, Pt. 1
Golden Twenties, Pt. 2
Shape Description, Pt. .

4. Symbols and Numbers

Symbols and numbers which appear as the first words of a main title shall be written out to permit computer assisted alphabetizing.

Examples

Twenty-four Hours of Progress
Twenty-nine Boom and 30's Depression

5. Articles

Main titles, including foreign language titles, which begin with articles such as "A," "An," and "The," should appear in the catalog listing exactly as they appear on the material. Filing or alphabetical listing will disregard the articles. The article should not be placed after the title. (Note: Some members of the Committee felt that if articles at the beginning of titles complicates computerized alphabetization, they should be dropped.)

Examples

The Toad and Turtle Race (NOT Toad and Turtle Race, The)
La America del Sur (NOT America del Sur, La)

6. Proper Names

When proper names appear in the title, they should be included exactly as they are used in the title on the material.

Example

Benjamin Franklin (NOT Franklin, Benjamin)

7. Editions

When an item is revised or released as a second or third version of an original title, it shall be referred to as an edition. An item shall not be considered a second or third edition unless it has the same title as the original. Only second, third or subsequent editions should be indicated.

8. Change of title

a. When an item has been revised and the title for it has been changed, this fact shall be noted at the beginning of the content description.

Examples

Percent - Why and How (Indicate at the beginning of content description: Revised version of "Percent in Everyday Life")
First Aid on the Spot (Indicate at the beginning of content description: Revised version of "First Aid")

b. When an item has been previously released under a different title, this information should be designated in the content description.

Example

Hawaiian Native Life (Indicate at beginning of content description: Formerly titled "People of Hawaii.")

9. Series

A group of related items produced under the direction or sponsorship of one organization for the same audience and the same general purpose is a series. If an item being cataloged is part of a series or subseries, the correct series title must be designated. Ordinarily, this information is obtained from the title frame or from the producer's literature (although the latter is not always reliable). The title's proper location in an organized series should be indicated if that fact is important.

Examples

Title: Jazz in the Concert Hall (Motion Picture)
Series Designation: (Young People's Concert Series)

Title: Death of Socrates
Series Designation: (You Are There Series)

10. Subseries

If a major series includes subseries titles, the major series title and the subseries titles will be entered.

11. Capitalization

In writing the titles of media, accepted English rules of capitalization should be observed.

12. Foreign Language Notes

If the sound track is in a different language from the title on the material, the language used in the sound track should be reported in parentheses after the title.

Examples

Passion for Life (French)
My Trip Abroad (German)

13. Excerpts, Adaptations, and Abridgements

In the case of films, alteration of an existing production through excerpting, adaptation, or deletion should be noted by reference in the content description to the title of the film which has been so modified.

II. TYPE OF MEDIUM

1. The type of medium being cataloged should be designated in parentheses immediately after the title.

Examples

Wheat Country (Motion Picture)
Passion for Life (French) (Motion Picture)

2. The types of media, differentiated and identified in this way, will include the following:

a. Motion Pictures
b. Motion Picture - Loop Cartridge
c. Motion Picture - Reel to Reel Cartridge
d. Kinescope
e. Video Tape
f. Filmstrip
g. Slides
h. Transparencies
i. Study Prints
j. Phonodiscs
k. Pre-Recorded Audio Tapes
l. Pre-Recorded Audio-Tape - Reel to Reel Cartridge
m. Pre-Recorded Audio-Tape - Loop Cartridge
n. Programmed Instruction
o. Kits
p. Art Prints
q. Charts
r. Maps
s. Globes
t. Dioramas
u. Models and Mock-ups
v. Specimens, Realia
w. Sheet Music
x. Books

III. PHYSICAL DESCRIPTION

1. Length

The length (running time) of motion pictures, motion picture - loop cartridge, motion picture - reel to reel cartridge, kinescopes, video tapes, phonodiscs, pre-recorded audio tapes shall be stated in minutes.

The length of filmstrips shall be expressed in number of frames. The length of sound filmstrips shall be expressed in terms of both minutes and number of frames. The length of programs in programmed instruction shall be expressed in number of frames and number of pages (if program is in book format).

2. Number of Items

Designate the number of items in kits and in sets of slides, study prints, transparencies, art prints, maps, etc.

3. Size

The significant size (dimensions) of the various media should be designated.

4. Verbal Accompaniment

   Designate whether the material is sound or silent. The form of verbal accompaniment and/or sound track in each catalog item should be expressed to indicate whether this verbal accompaniment is magnetic, optical, or in the form of captions, record or script (manual). In the case of films, it is necessary only to designate those items which have a magnetic track since it can be assumed to be an optical track if not otherwise categorized.

5. Playback Speed

   The playback speed of phonodiscs should be indicated in rpm (revolutions per minute). The playback speed of pre-recorded tapes should be expressed in ips (inches per second). The projection speed of films should be stated in frames per second when different from the standard sound speed of 24 frames per second.

6. Mode of sound recording

   Designate whether the sound of phonodiscs and/or pre-recorded audio tapes is monophonic or stereophonic by the words "mono" and "stereo".

7. Color

   The nature of stock used for motion pictures, filmstrips, slides, video tapes, study prints, art prints, and transparencies should be indicated to show whether the item being cataloged is in black and white, color, or sepia.

8. The data on programmed instruction items should designate whether the material is in book or machine format. If the program is in machine format, the type of machine needed should be indicated.

9. Table I is a check list of designations to be included in the physical description of "non-book" media.

IV. MATURITY RANGE

1. The maturity range[2] (designation of the levels at which the materials may most appropriately be used) should be expressed as follows:

K-3 (Kindergarten through grade three)
4-6 (Grades four through six)
7-9 (Grades seven through nine)
10-12 (Grades ten through twelve)
c (College and university levels)
a (Adult Groups)
Ex (Exceptional)

2. Other audiences, as described in V-8 below, should be designated in other content description.

V. CONTENT DESCRIPTIONS[3]

1. The contents should be summarized as briefly, accurately and objectively as possible. The principal ideas should be covered, if possible, in 50 words or fewer.

2. The summary or description should emphasize content. References to techniques used in production (time-lapse, slow motion, inconography, microphotography, animation, etc.) may be made when these techniques are significant in the process of selection.

---

[2] Several Committee members preferred the following designations:

p (Kindergarten through grade three)
el (Grades four through six)
jh (Grades seven through nine)
sh (Grades ten through twelve)
c (College and university levels)
ex (Exceptional)

[3] Items 1, 4, and 7 under V were not unanimously supported by the Committee although a majority of members were in agreement.

3. The summary or description should be sufficiently specific to serve as a basis for the assignment of subject headings.

4. Words and phrases should be used when they will substitute adequately for sentences. A telescoped or abbreviated style, using semi-colons between phrases, is recommended. The description should read smoothly, however, and should not sacrifice clarity for brevity.

5. Statements which add little to an understanding of content or its presentation should be avoided -- for instance, "This film shows..." or "This film tells the story of..." When content descriptions begin with a verb whose implied subject is the title of the material, the verb should denote the style of presentation as in "Documents," "Dramatizes," "re-enacts," etc. Such verbs as "shows," "presents," "describes," "indicates," "discusses," "portrays," "depicts," "relates," and "examines," may frequently be omitted.

6. Promotional or evaluative phrases such as "an exciting film which..." "an outstanding presentation which..." "a dramatic account of..." should be avoided whether commendatory or condemnatory. Editorial and unnecessary adjectives and adverbs should not be used.

7. Avoid repeating the title in the description or repeating information adequately expressed by it. It may be possible to shorten the content description and save a whole line by using pronouns which refer to the title.

<u>Example</u>

Title:
Mary S. McDowell
Content Description

How she defended her right to teach Latin while keeping her personal beliefs to herself. Because of her refusal, on religious grounds to sign a voluntary loyalty oath or to engage in any activity which aided the war effort, she was dismissed as a Latin teacher in a New York City high school in 1918.

8. The content description should include any necessary designation of special audiences to which the use of the material is restricted or for which it is primarily designated such as teacher education groups, libraries, churches, parent groups, the mentally retarded, the physically handicapped, the gifted, etc.

9. Credits to casts, commentators, collaborators, content authorities, lecturers, artists, and musicians should be included only if the names are of significance in the process of selection. Noted individuals or organizations that have made a contribution to the production of the material may be acknowledged.

10. When media are correlated with texts, reports, and other types of materials, this information should be noted.

Example

Title:
Promoting Pupil Adjustment

Content Description
Correlated with textbook "Planning
for teaching" by Richey

11. When a guide is available for the material, this fact should be noted by the single word, "Guide."

12. When components of a kit of instructional materials are designed so that each item may be used independently, each item should be listed in the content description. Otherwise the kit should be considered as a single unit.

Example

Title:
Common Market and the European Community (Kit)

Content Description:
Contains "Europa," a 10-minute animated color film describing the historial background leading to the Market's formation; 5 sound color filmstrips summarizing facts about the member nations; 12 color maps; a 4-page fact table; 1 phonodisc; 2 background booklets and a guide.

13. If an item has a foreign title and it has an English language version, this fact should be noted at the beginning of the content description.

Example

Title:
El Cumpleanos de Pepita

Content Description:
Spanish version of Pepita's Surprise.

14. For other foreign language titles the language used should be designated at the beginning of the content description with an indication of the level of the language used. The content description may also indicate whether the item is designed to teach the language or is intended for speakers of the language. If English subtitles are used, this fact should be noted in the content description.

Example

Title:
Castillos en Espana
Content Description:
Elementary Spanish Language

15. If the material is available with alternate sound tracks, this fact should be noted in the content description with the sound track briefly differentiated.

16. If boys', girls', or women's voices are used in the recorded narration, this fact may be noted (if considered significant) in the content description.

17. When abbreviations are used in content descriptions, a period should follow each abbreviation.

18. Accepted rules for word division should be followed. Do not divide proper names. When in doubt about word divisions, spelling or hyphenation, consult a recent edition of an unabridged dictionary.

19. Periods and commas should be placed inside quotation marks.

20. In writing a series, commas should be used before "and" and "or" for clarity.

VI. YEAR

1. The year of production shall be designated for all items cataloged. If the date of release is significantly different from the date of production, this point shall be made clear in the entry.

2. For films: The date will usually be the original publication or release date. If may be the copyright date, the date of the first presentation on television, or the original release date of a production now presented in an abridged, adapted or updated form which still relies primarily on the original production. In the case of the adapted version, both the original release date and the date of the adaptation or revision should be indicated. The newer release date supersedes the older one only when all or most of the visuals and sound are new. In the case of a foreign production, the American copyright or release date is helpful but should not be substituted for the original release date.

VII. PRODUCER-SPONSOR-DISTRIBUTOR

1. The producer should be noted by a distinctive, shortened name.

Example
McGraw-Hill for
McGraw-Hill Text-Film Division

A producer is defined as the organization or individual responsible for determining both the content and form of the material or for executing the wishes of the sponsor.

2. The name of the sponsor, if any, shall be specified. A sponsor is defined as the organization, other than the producer, which cause the production of the material. Sponsorship usually involves the promotion, either directly or indirectly, of a product, point of view, or attitude toward the sponsor. An identifiable, shortened name, employing abbreviations (consistently), may be used.

3. The name of the distributor, if other than the producer, should be designated. A distributor is defined as the organization which has exclusive national distribution rights for the material. Any sales organization which does not meet this definition should be considered as a regional or non-exclusive purchase source and should not be included in this catalog entry. Again, an identifiable, shortened name, employing consistent abbreviations, may be used.

VIII. SUBJECT HEADINGS

1. Basic authority for the assignment of subject headings is Sears List of Subject Headings, Ninth Edition, edited by Barbara Marietta Westby, H. W. Wilson Company, New York, 1966. Special assistance in the selection and use of subject headings may be obtained by reference to "Suggestions for the Beginner in Subject Heading Work" by Bertha M. Frick, pp 14-29, Sears List of Subject Headings. Additional assistance may be obtained from Subject Headings Used in Dictionary Catalogs of the Library of Congress, Seventh Edition.

2. In general, the rules developed in the references cited above should be followed carefully in the cataloging procedure for the sake of consistency and systematic organization. Considered departure from these rules may be necessary in developing indexes adapted to the growing needs of the curriculum and teachers. However, new terms and alternative terms should be recorded carefully for future reference and use.

3. Subject headings should be simple in form. A single noun is preferred when the language supplies it.

4. Subject headings should be as specific as possible. Use the most specific heading that expresses the content.

5. Subject headings should be mutually exclusive. It is essential that there be consistency in choice of terms and in coverage of headings. Use as many headings as are needed to describe an item. Frequently one to three headings will be sufficient.

6. It is recommended that subject headings be assigned on the basis of careful analysis of the content of the material being cataloged and every subject heading which is applicable to the material be used. It is

suggested that a heading be assigned even when only a part of the material is related to it. However, the assignment of a subject heading implies that the material is worth procurement and use in relation to the instructional purposes implied by the heading.

7. Standard "see" and "see also" references should be used in indexing, employing the Sears List or the Library of Congress List as the guide to their application.

IX. CLASSIFICATION NUMBERS

1. The catalog entries should include, where possible, classification or identification numbers such as Dewey, Library of Congress, and EFLA numbers.

X. FORMAT

1. In preparing a catalog for the general user, the following sequence of elements of catalog data is suggested. Exceptions to this sequence will sometimes be necessary and some catalogs will require inclusion of variable information such as rental rates, purchase prices, inventory numbers, etc. In cataloging materials, not all of these elements will be applicable in any given instance. The omission of any element will indicate that it does not apply or that it is not required by the user.

a. Title
b. Type of Medium
c. Edition
d. Producer-Sponsor-Distributor
e. Year
f. Length
g. Sound or silent; Speed; Mode of Recording; Captions; and book or machine format for programmed instruction items.
h. Nature of stock (black and white or color)
i. Size
j. Maturity Range
k. Series
l. Content Description (Incorporate notes on: Change of Title I-8a, b; Special Audiences, V-8; Credits, V-9; Correlated Materials, V-10; Guide, V-11; Foreign Language Used and Level, V-13, 14; Alternate Sound Tracks, V-15; Boys' and girls' voices, V-16.)

m. Subject Headings
n. Classification and/or Identification Numbers in this order: Dewey; Library of Congress; EFLA.

Examples

Spanish Community Life (Motion Picture) Bailey 1961 14 min. Sound Color 16mm. 4--9

The life of a farmer and his family in a pueblo near Madrid and the contrasting influences of traditional and modern life. Typical village activities: men leaving for work in the fields; women doing household chores; the family attending church; entertainment of friends in their homes. How the village was once self-sufficient but is today being influenced by the city.

Spain

914.6

Jazz in the Concert Hall (Motion Picture) CBS;McGraw-Hill 1965 Sound B & W 16mm. 4--12 (Young People's Concert Series)

Nature of jazz and its fusion with "serious" concert music in the last forty years. Three major works by the orchestra and soloists illustrate this fusion, ending with a very modern piece for orchestra and jazz combo.

Jazz music; Music--Analysis, Appreciation

781.6; ML 3561.J3;

Pipework and Simple Plumbing (Filmstrip) McGraw-Hill 1953 29 Frames Silent B & W 35mm 10--c (Shopwork Series)

How to measure, cut, ream, thread, and assemble pipe. The use of common pipe tools in repairing valves and faucets.

Pipe fitting; Plumbing; Vocational education

Pacific Ocean and Adjacent Countries (Map) Burkhart; Nystrom 1964 1 Color 45" X 64" 7--c

Pacific area; island groups; transportation routes; flying distances; dates of major events in recent history.

Geography, Commercial; Geography, Historical; Islands of the Pacific

912

Petroleum Industry (Study Prints) Hi Worth 1955 32 parts Captions B & W 11" X 14" 4--9

The story of oil; the drilling of a well; refining processes; shipping; distribution of the finished product.

Boring; Geography, Commercial; Geology, Economic; Mines and Mineral Resources; Natural Resources; Petroleum

665.5

Etienne Brulè (Pre-Recorded Audio Tape) WUOM 1953 15 min. 3.75 ips or 7.5 ips mono 7" reel 7--c (A Name to Remember, Series II)

As one of Samuel de Champlain's aids, Brulè was sent into the wilderness of the new world to explore and to study the language and habits of the Indians. As scout, explorer, and interpreter he blazed new trails into the country north and west of Georgian Bay, discovered Lake Superior, and became the first white man to set foot in what is now the State of Michigan.

Bibliography; Michigan; U.S. History (Discovery and Exploration)

973.1

TABLE I CHECKLIST OF ITEMS FOR PHYSICAL DESCRIPTION OF NON-BOOK MATERIALS

TYPE OF MEDIUM	LENGTH	NUMBER OF ITEMS	SIZE	FORM OF VERBAL ACCOMPANIMENT MODE OF SOUND REC	PLAYBACK SPEED	COLOR	OTHER CHARACTERISTICS
Motion Pictures	Minutes		35 mm 16 mm 8 mm-Standard Super Eight	Sound Silent Magnetic or Optical	16 frames per second 24 frames per second	Color or B & W	
Motion Picture - Loop Cartridge	Minutes		8 mm-Standard Super Eight	Sound Silent Magnetic or Optical	16 frames per second 24 frames per second	Color or B & W	
Motion Picture - Reel to Reel	Minutes		8mm-Standard Super Eight	Sound Silent Magnetic or Optical	16 frames per second 24 frames per second	Color or B & W	
Kinescopes	Minutes		16 mm	Optical	24 frames per second	Color or B & W	
Video Tapes	Minutes		¼ inch ½ inch 1 inch 2 inch	Magnetic	7.5 ips 9.6 ips 12 ips etc.	Color or B & W	type playback unit required
Filmstrips	Frames; for sfs, number of frames and minutes		35 mm	Captions; Pre-Rec Audio- Tape; Manual Phonodisc	ips rpm	Color or B & W	
Slides		Number in set	3¼X4 inch 2¼X2¼ inch 2X2 inch	Manual; Pre- Rec Audio Tape Phonodisc	ips rpm	Color or B & W	
Study Prints		Number in set	8X10 inch 11X14 inch 16X20 inch other	Captions; Text on back		Color or B & W	
Transparencies		Number in set	7X7 inch 10X10 inch	Internal captions		Color or B & W	

TABLE I CONTINUED

TYPE OF MEDIUM	LENGTH	NUMBER OF ITEMS	SIZE	FORM OF VERBAL ACCOMPANIMENT MODE OF SOUND REC	PLAYBACK SPEED	COLOR	OTHER CHARACTERISTICS
Phonodiscs	Minutes	Number in Album	7 inch 10 inch 12 inch 16 inch	Mono or Stereo	16.5 rpm 33.3 rpm 45 rpm 78 rpm		
Pre-Recorded Audio Tapes	Minutes		3" reel 5" reel 7" reel	mono or stereo	15/16 ips 7/8 ips 3.75 ips 7.5 ips 15 ips		
Kits		Number of items				Specify which items in color	
Art Prints		Number in set	Width and Length in Inches	Manual		Color or B & W	
Charts		Number in set	Width and Length in Inches	Manual Captions Text on back		Color or B & W	
Maps		Number in set	Width and Length in Inches	Captions Text		Color or B & W	Mounted
Globes			Diameter in inches				
Dioramas			Overall Dimensions in inches				
Models and Mock-ups			Overall Dimensions in inches				Metal, Plastic Etc.
Specimens - Realia		Number in set	Overall Dimensions in inches				

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GROUP II

The Committee on Codes for
Computerized Booking and Cataloging
of Educational Media

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The chairman of this committee also wishes to express gratitude to Mrs. Muriel Day and T. Sullivan of the staff of the Computer-Based Film Library Network for manuscript typing and proof-reading and Mrs. Pauline Atherton and G. Abbott of the School of Library Science at Syracuse University for constant guidance, counsel, and encouragement. This investigation was supported in part by a research grant from the United States Office of Education.

Note

In the following report, items originally entering a library or instructional materials center are referred to by their generic term plus the term "title" (as a 'filmstrip title' or 'motion picture title'). Duplications of the specific title are referred to as 'prints', for filmed material, or 'copies', for non-film material even though they both are, technically speaking, copies of the original. For cataloging purposes the correct title is vital, whereas for scheduling and inventory control purposes the identification number containing the print or copy number is vital. Titles and prints therefore must be uniquely identified to satisfy the requirements of both purposes.

An identification number is described in Section I (p. 21). Additional identifying elements which are useful descriptive information pertinent to educational media are listed and codes are suggested in Section II. Definitions of terminology involved in this coding standard along with examples of applications of the standard are presented in Section III.

INTRODUCTION

The purpose of this document is to establish coding standards. Standards are necessary for establishing compatibility which is essential to any form of information exchange involving either reference or information retrieval. This exchange might involve one library or resource center and any others -- locally, regionally, or nationally.

As far as possible, these standards for coding media have been constructed to allow for expansion so that they could include materials that are yet to be invented or incorporated into the educational media field. The codes have been designed so that they would apply equally to manual as well as automated cataloging and booking (scheduling) procedures. Most of the codes are mnemonic and easily decoded by personnel familiar with educational media.

The following codes have been evolved from numerous communications and publications. They are now to be regarded as standards with the following qualifications:

1. They are subject to change. The only constant within the educational media field seems to be change itself. As the size of a collection increases, as technological advances alter handling procedures, and as usage patterns change to reflect modified teaching methods, reorganization is always necessary. These codes are intended to incorporate flexibility and compatibility in an effort to reduce the amount of change necessary - not to eliminate it.

2. They are not perfect. They were developed to meet a need but as needs change their values will alter also, some increasing in value and others decreasing. However, they do provide a standard and this guideline serves a real and immediate need.

> "on the national basis, it is extremely difficult to agree on standards. The time is always wrong; it is either too early because there is insufficient experience, or too late because one is committed." J. A. Harrison, Audiovisual Instruction, April 1967.

SECTION I: IDENTIFICATION NUMBER

Description

A numbering system which uniquely identifies each item and labels its place in storage is recommended for storage and retrieval purposes within any instructional materials center. The prime purpose of such an identification numbering system is to uniquely identify a unique item. (This raises an interesting problem: what constitutes a unique item? Are two films with identical footage but one print in color and the other in black and white, the same item? Is a microfilm of a complete book, or a xerographic copy of a book equivalent to that book? Are we to identify unique form or unique content of the item concerned? Until a national clearinghouse, such as the Library of Congress, establishes these criteria all local materials centers may, if they wish, experiment with the proposed identification number.)

Since the purpose of establishing a national standard for an identification number is to make possible intro-national and perhaps inter-national information exchange, the number must be at least national in scope and must also be controlled and maintained by a national clearinghouse. For these reasons the standard format used by the Machine Readable Cataloging Project (MARC Project, Library of Congress, Washington, D. C. 20504) is recommended and was adopted in the establishment of the Identification Number described on the following pages.

In summary then, materials centers should:

(a) experiment as they see fit with the proposed standards and report findings;

(b) expect that eventually national ID numbers will be issued, and that these will be required if they expect to participate in any wide-scale information exchange;

(c) under any circumstances keep informed on the developments in this area under Booking and Cataloging Sub-committee of the Commission on Information Science, DAVI.

Use

This Identification Number may become vital to any computer-based information retrieval or material scheduling network because it sequentially and uniquely identifies medium, storage area, date and accession number of each item, as well as the specific copy. Five codes comprise the Identification Number: media code, storage code, year code, sequence number, and print/copy number. Each of these codes is outlined below. If the intention of the codes is kept in mind whenever the codes are applied, their service will be enhanced.

IDENTIFICATION NUMBER: MEDIA CODE

The Media Code is intended to identify (classify) all possible media formats and combinations of these. The media classes (see Table I) are based upon the purpose of the medium and to some extent its nature rather than on the physical material of the medium. Essentially, if a new device is invented or an old medium (such as magnetic tape) is used for a new purpose (such as recording motion, as in the case of a video tape recording) it can be easily classed by its purpose and nature regardless of its physical properties. In the "Comments" column are examples of media applications that belong to that class. Within a class, if one medium warrants subdivision by sheer volume and use associated with it, that medium should be given a code of its own. For example, motion picture films are a largely used medium and some variations of this medium are growing to such an extent or have such a unique application (physical format) that they deserve an individual code such as MC for Motion pictures that are in a Cartridge.

REFER TO TABLE I
(on the next page)

NOTE...Materials that are used together or circulated as units must be considered as a unit and coded as such. This treatment is usually reflected in the way in which the materials are stored. If a book compliments a filmstrip but is not essential to the function of the filmstrip (or the filmstrip to the book) then they can be coded (identified) independently as BK and FS. However, if the book is intended to be used in conjunction with

the filmstrip then they should be packaged together, stored together, circulated as a unit and given a single identifier such as KT. A sound filmstrip, with a disc or tape, etc. would be considered a kit and coded under Multi-media as KT.

Although these codes are alphabetic they may be converted to digits with each class holding a different group of ten - e.g. AUDIO RECORDS in the 30s, BOOKS in the 60s. The identification number might then be changed from alpha-numeric MP867004902 to numeric 10867004902.

TABLE I

IDENTIFICATION NUMBER: MEDIA CODE

CLASS	MEDIUM	CODE	COMMENTS
AUDIO RECORDS	Discs	RD	
	Tapes	RT	
	Card sets (Magnetic striped flashcards)	RC	
MOTION RECORDS	Motion picture films (including Kinescopes)	MP	Kinescopes identified in catalog.
	Motion picture films - cartridge	MC	
	- loops	ML	
	Video recordings (tape, disc., etc.)	MV	
STILL FILMS	Microfilms (reels)	FM	
	Microfiche, Aperture cards	FF	Jacketed film cards
	Filmstrips	FS	Filmslips (rigid format)
TRANS-PARENT MATERIALS	Slides (all sizes including microscope)	TS	Stereoscopic slides
	Transparencies (for overhead projection)	TR	Transparent objects

TABLE I (cont'd)

IDENTIFICATION NUMBER: MEDIA CODE

CLASS	MEDIUM	CODE	COMMENTS
FLAT MATERIALS	Study Prints	PS	Flash Card Sets
	Art Prints or Reproductions (opaque)	PA	
	Display Board materials (sets)	PD	(Magnetic & fabric)
	Charts (wall charts, flip carts, etc.)	PC	Scrolls Maps
	Micro cards (opaque)	PM	
BOOKS	Programmed Instruction texts	BP	
	Books (circulate as single volumes)	BK	Periodicals
	Booklets, Brochures, Newspaper clippings	BB	Articles, Reports
	Study Guides-Teacher's Manuals	BG	Catalogs, Professional texts
	Sets, series, (circulate as sets)	BS	Textbooks, Encyclopedias
DIMENSIONAL MATERIALS	Dioramas	DD	
	Exhibits (displays)	DE	
	Models (mock-ups) Puppets, Dolls	DM	Planetariums, Globes
	Specimens-Samples (realia collections)	DS	Artifacts, Objects
MULTI-MEDIA KITS	Kits-a mixture, program, or system of units representing various media	KT	Slide-tape sets, Filmstrip-disc sets
	Programmed Instruction (machine format)	KP	Computer Aided Instruction
	Laboratory Kits	KL	Boxed materials for discovery, games
OTHER	Unassigned (for expansion to accept a new class of medium)	XX	Equipment? Miscellaneous?

IDENTIFICATION NUMBER: STORAGE CODE

The Storage Code is intended to be a guide for local use in indicating the shelf range(s) used for housing the materials identified by the media code. Most instructional materials centers store their materials according to physical specifications. Filmstrips in their containers fit well in a hole board or drawer but they get lost or damaged loose on shelves. Phonodisc records are stored vertically with the result that when a filmstrip is accompanied by a disc recording they are usually boxed together, stored on a separate shelf, and given a storage code different from either the filmstrip area or the phonodisc area.

For storage purposes and for ease of retrieval from storage areas within any resource center, as well as for identification purposes, a numeric code* based on a dimension of the medium should indicate its library storage area (shelf range).

*REFER TO TABLE II
(on the next page)

TABLE II

IDENTIFICATION NUMBER: STORAGE CODE

MEDIUM	DIMENSION		STORAGE CODE *	EXAMPLES
Audio Records				RT7...is a recording on a 7 inch reel of audio tape
RT	Tape or disc diameters	3 inch	3	
RD		4 inch	4	
etc.		5 inch	5	
		7 inch	7	RD2...is an audio recording on a 12 inch disc
		10 inch	1	
		12 inch	2	
		16 inch	6	
Motion Records	8mm and Super 8mm	short	8	MC8...a short (4min.) 8mm single concept film in a cartridge
		long	9	
MP	16 mm 1 reel (400 feet)		1	MP8...a short 8mm film
MC	16 mm 2 reel (800 feet)		2	
MV	16 mm 3 reel (1200 feet)		3	MP4...a 16mm film in a 1600 ft. can
etc.	16 mm 4 reel (1600 feet)		4	
	35 mm		5	MV4...a videotape recording on 1/4 inch tape
	70 mm		7	
	Tape widths	1/4 inch	4	
		3/4 inch	3	
		1 inch	1	
		2 inch	2	
Still Films				
FM	Microfilm reels		1	FM1...microfilm on a reel
FF	Microfiche		2	FS5...35mm filmstrip
FS	Filmstrips 35mm		5	

TABLE II (cont'd)

IDENTIFICATION NUMBER: STORAGE CODE

MEDIUM	DIMENSION	STORAGE CODE	EXAMPLES
Transparent Pictures			
TS	Stereoscopic - slide pairs	1	TSO...is a View-Master "reel"
TO	- discs	0	
	Microscopic slides	5	TO8...is a transparent slide rule for overhead projection
	2 x 2 slides	2	
	2 1/4 x 2 1/4 slides	3	
	3 1/4 x 4	4	
	7 x 10	7	
	Flat transparent materials	8	
	Dimensional " "	9	
ETC.	ETC.	ETC.	ETC.

*NOTE... These numbers are a recommendation only. This code's exact content is a matter for each local materials center to establish for internal storage control. The numbers are presented here because they are part of the identification number.

e.g. FS5-64-009103

IDENTIFICATION NUMBER: YEAR CODE

The Year Code is intended to show the date that the item was entered (accessioned) into the center library. However, when the Library of Congress identification number is available, as with most books and films, that year code will be the year the Library of Congress processed the item. Usually this date is the year of production copyright. The code is simply the two right-hand digits of the year (the number of the year within the century) and it is placed between the storage area code and the sequence (accession) number. For example: KT259004801 is the identification number for a kit of materials stored in area two (2) for games and it was received in the library in 1959 OR it was copyrighted in 1959 whichever policy the library holds in this matter. When the Library of Congress issues a catalog card on the item it reads:

54-5970	for a book copyrighted in 1954 or
FiE-61-498	for a film described by the U. S. Office of Education and received for cataloging by the Library of Congress in 1961 (which is probably the same year as it was copyrighted).

IDENTIFICATION NUMBER: SEQUENCE NUMBER

The Sequence Number allows for two uses: either up to a six digit number as is presently used in the Library of Congress Catalog Card Number or as a four digit sequence number followed by a two digit number to identify prints, duplicates, copies, etc., of the item. This sequence number is gained from straight accession numbering of items as they are received and entered during the year (mentioned above) and placed in storage (shelf number).

Thus MC9-67-004902 is found in the storage area for long 8mm motion picture films contained in cartridges and within that area its prints may be found between MC9-67-0048 and MC9-67-0050. In actual labelling of the containers only the 67-004902 need appear since the medium and storage area are obvious to those working in the materials center and in cases where no duplicate prints are held only the 67-0049 would be necessary on the container or material itself.

IDENTIFICATION NUMBER: PRINT/COPY NUMBER

Most libraries have enough books to use the six digits but for other media three or four digits (999 or 9999) will allow for all the additions to their inventory within a given year. (The only caution in reducing this field would be to program dummy zeros to the left so that the system will be compatible with any being developed based on the Library of Congress' Machine Readable Cataloging Project.) A use for the first two spaces from the right could be for the numbers(or letters) of the prints or copies of the item being identified.

For example, when a new title is received it becomes copy number 01 and any additional prints or copies of that title become numbers 02, 03, 04. etc.

PS2-65-032701 FRENCH FLASH CARDS is the original item;
PS2-65-032702 is the second set of French cards received; and
PS2-65-032703 is the third set, etc.

IDENTIFICATION NUMBER: SUMMARY

The Identification Number is the unique identifier for each item stored in and circulated by a library or instructional materials center. It is presently composed of eleven characters (alphabetic and numeric) and allows for adaptation to local purposes in the storage area code as well as in the sequence and print numbers. When regional or national machine-readable cataloging and/or scheduling networks are established such a format will probably be continued and local entries will be translated into regional or national standards under these codes. The Identification Number is composed of the three codes and two numbers described above. The format for this Number is detailed in Table III.

REFER TO TABLE III
(on the next page)

TABLE III

THE IDENTIFICATION NUMBER

ELEMENT CODES					EXAMPLES
MEDIA CODE	STORAGE CODE	YEAR CODE	SEQUENCE NUMBER	COPY / PRINT	LC MARC PROJECT NUMBER FiA-62-005837 No print or copy number is used since all six digits are used for accession numbering of books.
X X	X	X X	X X X X	X X	
two letters to indicate the medium of the item	one digit from dimension to indicate storage place	two digits from production copyright or acquisition year	six digits for the accession numbers within the collection (and the print identifier)		LC CATALOG CARD NUMBER Fia-65-6882 Dashes are ignored by MARC
					INSTRUCTIONAL MATERIALS CENTER MP8-67-004902 This is a motion picture film 8mm wide. It is the forty-ninth added to the inventory in 1967 and this unique item is the second print of that title held by this center

NOTE: Dashes may be inserted in the Identification Number for ease of reading, however, they are not to be included when the Number is made machine-readable. Within the processing equipment the Number must occupy a fixed field of eleven characters.

SECTION II: DESCRIPTIVE ELEMENT CODES

Description

The element codes are independent of the identification number. Their purpose is to code other pertinent descriptive information about the identified material such as title level, content, length, producer-publisher, physical nature within a media class, etc. They are proposed in an effort to establish conventions of usage so that in the exchange between libraries or centers decoding may be facilitated or eliminated.

Use

In cataloging and in catalogs these codes are used as shorthand indications of features of the material that are constantly indicated (e.g. length, maturity level). They usually appear in fixed locations in the catalog description and in fixed fields in tabulating cards for machine readable cataloging.

In scheduling the use of materials these codes may form part of the confirmation message to remind the user of special features.

In reference retrieval these codes may be invaluable for processing (sorting, matching, grouping). They provide the elements upon which selections may be made to match the specifications of any request. For example, a person might state that if the requested item were not available a similar item might be considered as a substitute. By selecting the elements, such as level and content, of the requested item and matching them with those of the available materials a list of suitable substitutes might be provided for the selection of an alternative item.

It should be noted that these codes are entered in fixed field columns according to the needs of the local center and it is by means of these fixed locations that the computer or sorter differentiates between identical digits or characters (e.g. "M" for monaural sound as opposed to "m" for magnetic or machine format).

DESCRIPTIVE ELEMENT CODES: TITLE CODE

Recommendations:

Titles should be indicative of the content of the items. It would be much easier for everyone if producers could be more direct in their titling instead of enticing and intriguing; it would be helpful if all items even had titles and it would be ideal if titles were concise and unchanging. However, in the real world titles of educational media materials are one of the sources of cataloging and scheduling difficulties.

In cataloging the title must be exact. Often local centers have difficulty determining this from films or tapes themselves because the title frames include series titles and subtitles either of which can be mistaken as the unique title of that item, or in the case of tapes the opening sounds or scenes can contain no title in a formal sense. The first possible step in resolving this problem is to refer to the Library of Congress' National Union Catalog for Motion Pictures and Filmstrips or the master title listing from the NICEM Catalog of 16mm Films.* The second available step is to consult the source, the publisher, producer, etc. or the person who ordered the material for an indication of the most precise title to assign the item.

"In the world of mules
There are no rules."
Ogden Nash

Once the title has been determined it should be treated according to these "rules" for entering into a catalog record:

1. Use the full exact title as found by reference to the most reliable sources available (mentioned above).

2. Follow Library of Congress format as far as possible which places the subtitle directly after the title and lists and series title in the notes.

NOTE: * NICEM, University of Southern California, Los Angeles 90007

In scheduling (and inventory control) the title should be abbreviated. It should also retain as much unique distinction as possible. Such an abbreviated title may be derived by following the steps outlined below.

DERIVING THE SHORT TITLE

To establish the short title it is recommended that these steps be followed:

1. Count the characters in the title including punctuation and spacing.

2. Compare this count with the number of columns available for the title field on the tabulating card. If only one card is used for each item then 20 or 25 characters may be the field limit. Such a comparison determines the amount of abbreviation necessary.

3. Remove all articles -- A, An, The, a, an, the.

4. Retain the first word that is not an article - except when it is very long and common and can be abbreviated without loss of meaning. For instance, if the title is: The Fundamentals of Football (28 Characters) the first try at abbreviation would look like this:

   Fundamentals of Football (24 Characters)

   If your field limit is 20 character (columns) then further editing is necessary. The choice for abbreviation is now between "Fundamentals" and "Football". "Fundamentals" is common enough so that it can be cut without loss to the meaning. The title now becomes:

   Fundmtls of Football (20 Characters)

5. Reduce words by dropping letters or syllables after the first letter or syllable of a word. Small words when reduced will usually retain their meaning from the context. Large words, however, can be reduced by a combination of trials based on

phonetic spelling or visual clues. Start with the title BRITAIN: SEARCHING FOR A NEW ROLE (33) and apply the steps. This could produce:

BRITAIN: SEARCH F NW RL (22)

If it must be reduced to twenty characters apply the exception in step 5 and abbreviate the first word to form the short title:

BRITN: SERCH F NW RL (20)

6. Replace "and" with an ampersand (&) or a plus sign (+).

Dick and Jane - Dick & Jane or
Dick+Jane

7. Use digits and symbols to replace words as long as the sense of the title is retained.

Goldilocks and the Three Bears (30)
becomes Goldilocks & 3 Bears (20)

Man's First Flight Into Space (29)
becomes Mans 1st Flit In Spa (20)

8. Retain titles in foreign languages as full as possible with articles and all words represented. Under field limits, however, the most common word, or the word most similar to English should be the one that is abbreviated. Since both:

PUEBLO MEXICANO DE C ALDEREROS (29) and
PUEBLO MEXICANO DE P ESCADORES (29) would (20)

appear almost identical if they were run full up to the 20th character (including spaces) it is advisable to reduce MEXICANO, the word closest to English, to form the short titles:

PUEBLO MEX DE CALDER (20) and
PUEBLO MEX DE PESCAD (20)

SHORT TITLE STEPS (continued)

A long title such as:

LA VIE FAMILIALE D'UNE FERME FRANCAISE (38)

would require more drastic editing yet still retain something of each word, even articles.

LA VIE FAMIL D FERM (19) omits the final word and if it is the only title like this, such a short title, may serve. However, the final word can be represented if we further reduce a common word to form:

LA VIE FAM D FERM FR (20)

9. Represent every word in the original title, except articles, to aid in alphabetical sequencing and accurate decoding. In the example below "of" was reduced to "o" but not eliminated.

10. Maintain the distinctions of key words: beware of reducing any word so that it is indistinguishable from similar words or other forms of the word.

e.g. Geo Sy o Bfld Ar
is too short because it could represent:

George's Story of a Baffled Artist,
Geological Survey of a Battlefield Area,
Geographical Study of a Ballfield Arena, etc.

The key words should be more complete such as:

Geos Story o Baf Art	(20)
Geol Survy o Batl Ar	(20)
Geog Study o Bal Arn	(20)

11. Retain any notation of a part or series immediately at the right end of the short title.

SHORT TITLE STEPS (continued)

	(Item Title)	(Series Title)
(a)	The Depression Years:	Saga of the American People Series (56)
becomes	Depression Yrs:	Saga (20)

(b) How to Make Hand Puppets (Part 1, or Type 1, Section 1 etc.) (31-34)

becomes How to Mk Hand Pupt 1 (20)

12. Add a distinguishing element if necessary. If there seem to be identical titles check on the other elements (length, producer, edition, etc.) and include the distinguishing element after the abbreviated title (in parentheses if space allows). For example, there are four productions on 16mm film entitled "The Challenge" so the productions are identified as:

Challenge (SF)
Challenge (USC)
Challenge (NEA)
Challenge (McGH)

If they are by the same producer use another element to distinguish different items:

Winter Bird (1st Ed)
Winter Bird (2nd Ed)
Winter Bird (3rd Ed)

Stained Glass Rev. Ed

By Map & Compass 14 min.
By Map & Compass 27 min.

Atomic Alert (Elem)
Atomic Alert (Adult)

13. Abbreviate the series if it is part of the title; to emphasize the subtitle.

SHORT TITLE STEPS (concluded)

(Series Title) (Subtitle)
The Geography of the South Eastern United States: Florida Peninsula and the Gulf Coast becomes

Geog SE US: Fla Pen & GC (24)

14. Test each short title by showing it to someone who is unaware of the full title to determine the ease with which it can be decoded.

DESCRIPTIVE ELEMENT CODES: LEVEL, CODE

This code of three characters is intended to designate the maturity levels for which the material is suitable. In general, this is an indication on the part of the creator or the cataloger of the level of sophistication involved in the approach to the topic and in the level of the spoken and/or written vocabulary involved in the presentation of the content.

The most suitable level of use could be shown in catalog entries by underlining. In machine readable format a field of three (3) characters could show the most suitable level range in the middle. For example, PIJ, PII and III would all indicate recommended intermediate level use with the first example having broader application than the second and the third being restricted to that level.

MATURITY LEVEL	LEVEL CODE
Preschool, Nursery, Kindergarten	K
Primary	P
Intermediate	I
Junior High School	J
Senior High School	S
College	C
Adult Education	A
Teacher training - professional content	T
General - universal application	GEN
Exceptional children - Special Education	X

NOTES.... Materials specially prepared, or suited, for Special Education, Exceptional Children, etc., should be given a notation within the catalog entry (bibliographic annotation) and could also receive a code as part of the level code.

e.g. MP8-62-019001 POWER SWITCH OPERATN PI

This film is intended especially for the primary level with some use at the intermediate level as well as for special classes of exceptional children.

General (universally applicable) materials which have no inherent maturity or sophistication level specification, such as the majority of music and art, can be identified by the code GEN. Sorting on the middle character (E) will give as unique a listing as any other level code entry.

DESCRIPTIVE ELEMENT CODES: LENGTH CODE

This code is intended as a standard practice for measuring (a) the duration of a presentation using media or (b) the quantity of parts of a unit. It should be a numeric designation of the length of the item within a three digit field limit.

Audio records ---------- playing time in minutes
Motion records----------showing time in minutes
Still films----------frames to the strip or reel
Transparent pictures----------number of parts in the set
Flat materials----------number of parts in the set
Dimensional materials----------total items in set
Multi-media Kits----------total items in kit
Books----------pages

For example, a filmstrip would have its length coded as 043 if it had 43 frames in it, but the same filmstrip with a disc or tape and a guide-book packaged with it, would be coded as 003 under the Multi-media Kit class.

The tabulating card for a filmstrip alone might appear as:

FS5 62 035604 MAPPING OUR TOWN IIJ043
because it contains 43 frames,

and for a phonodisc as:

RD7 63 012701 HIPPITY HOP T BARBER KKP009
because it plays for 9 minutes,

and for a box of rock samples as:

DS4 64 003205 SEDIMENTRY RKS: LOCL IJJ025
because it contains 25 samples of rock.

DESCRIPTIVE ELEMENT CODE: PRODUCER-PUBLISHER CODES

The main purpose of this code is to indicate the source for additional copies. However, since many items entered into an instructional materials center lack an author, the producer of the item could become the universal element in lieu of an author. This would include local productions by naming the source person or group who, for example, took the 2 x 2 slides in France on a holiday, or who made the scrap-book, the model, the 8mm movie, etc.

It is recommended that the producer or publisher be coded mnemonically by an alphabetic code. No distinction here is made between producer (or publisher) and distributor (or vendor or agent). In most cases only one needs to be coded but if the other is to be made machine-readable it will follow this coding and be placed in its appropriate fixed field.

The source of coded names for producers of educational media is the National Information Center for Educational Media, University of Southern California, Los Angeles, 90007. Here are some samples of the Producers Code:

CODE	INTERPRETATION
ABCTV	AMER BROADCASTING CO, TV
BRYAN	JULIEN BRYAN
COLLRD	JARVIS COUILLARD ASSOCIATES
DISNEY	WALT DISNEY PRODUCTIONS
FA	FILM ASSOCIATES
HRAW	HOLT, RINEHART AND WINSTON
IFB	INTERNATIONAL FILM BUREAU
MORLAT	MORELAND-LATCHFORD PRODUCTIONS
OPRINT	OUT OF PRINT
SYRCU	SYRACUSE UNIVERSITY
TFC	TEACHING FILM CUSTODIANS
USAID	U.S. DEPARTMENT OF STATE, AGENCY FOR INTERNATIONAL DEVELOPMENT
WILSON	JOHN WILSON
YUP	YALE UNIVERSITY PRESS

For example, a filmstrip might be represented in a record as:

FS5-59-007501 EGYPT: LOWER NILE 1 PIJ037 EYEAR

which would indicate that Eye and Ear Productions was the producer.

The source of coded names of publishers is the MARC Project, Library of Congress, Washington, D.C. 20540. This extensive work, Publishers Code (Fixed Field) lists discrete codes for the names and places of publication for trade publishers, college and university presses, and government printers in most English language countries. "The term 'publisher' is being used to include publishers' imprints (Clarendon Press, imprint of Oxford University Press) and divisions of publishing houses (Gregg Division, McGraw-Hill Book Company)."

The place of publication code represents the state or country in the left two characters and the city in the right two characters (e.g. ENLO - London, England; DCWA - Washington, D.C.)

Here are some samples of the Publishers Code:

NAME	PLACE	INTERPRETATION
AAGE	AACA	GOVERNMENT PRINTER, CANBERRA, AUSTRALIA
AB	MSBO	ALLYN AND BACON, INC., BOSTON, MASS.
ACC	NYNY	APPLETON CENTURY CROFTS, N.Y.
ACTI	ENLO	ACTINIC PRESS, LTD., LONDON
ALBY	SKED	ALBYN PRESS, EDINBURGH
GINN	MSBO	GINN AND CO., BOSTON, MASS.
GGJR	CASC	GOLDEN GATE JUNIOR BOOKS, SAN CARLOS, CALIFORNIA
GPO	DCWA	GOVERNMENT PRINTING OFFICE, WASH., D.C.
GRAG	CDMO	GRANGER FRERES, LTEE., MONTREAL, CANADA

RECOMMENDATION :

Since the publishers code is a four-letter field and the producers code is a six-letter field to maintain uniformity two letters from the place of publication code could be added to the publishers code to increase it to the six-letter field used for the producers code.

It is recommended that these available codes be obtained from the sources mentioned above and used.

DESCRIPTIVE ELEMENT CODES: CONTENT CODE

This element may be established locally as the need arises. Only the recommended format and intention are noted here. The format would be three sets of digits. This numeric code would indicate the content areas (a)for which the item was most directly proposed, (b) for which it was also appropriate, and (c) to which it was possibly related. These comparative relations may be indicated by three successive two-or-three-digit numbers.* The first (left-hand) number being superior to the third (right-hand) number.

Example -- 834 101 244 as the content codes for an item might indicate that it is intended to cover the life and work of a cowboy (834), but this item is also used to stimulate creative activities such as story-writing (101) and picture making (244).

The intention of this code is to indicate any item's purpose and intended use as it is reflected by its content and objectives. The numbers may be derived from any classification scheme employed by the instructional materials center. Their greatest use will be in allowing processing to retrieve items that match a request for materials with specified content and/or objectives.

Thus from the example above, a request for an item to inspire poetry-writing (101) about farm life or camping might be unavailable but by matching on the creative writing (code number 101) and the outdoor life and work (code number 834) other related materials could be selected as possible substitutes, especially if they were also matched for maturity level.

The retrieval of items is achieved by matching requests for specific content against the content codes of the items in the center. Another use for the content code is the selection of substitutes for unavailable materials by matching the content codes of the unavailable item with those of available materials. By the same method enrichment materials to accompany requested items could be selected.

*NOTE.....If a two-digit code is used it is recommended that the three-character field be retained for two reasons:

(a) it will maintain uniform format
(b) it will allow expansion or refinement of the code

Example -- on a tabulating card the two-digit code could appear as:
33-84-73-, with 33- referring to "geography, Asia",
84- referring to "culture, art", and
73- referring to "history, Asia".

If the code was expanded the dash could be replaced by a digit indicating a further refinement of the content, such as:
334847734, with 334 referring to "geography, Asia, Japan",
847 referring to "culture, Art, pottery", and
734 referring to History, Asia, Japan".

DESCRIPTIVE ELEMENT CODES: PHYSICAL SPECIFICATION CODES

These descriptive elements are not common to all media; they are specific to two broad classes of media (video materials, and audio materials) and the physical nature of the media within these classes. Again, we must caution users that these elements when coded must be assigned to fixed fields (columns, positions) for correct decoding or processing either manually or mechanically.

For Audio Materials

A three-character field should be provided to indicate physical specification of audio materials. The first of the three characters would be a numeric code to designate playback speeds.

discs	8 1/3 rpm	8
	16 2/3 rpm	1
	33 1/3 rpm	3
	45 rpm	4
	78 rpm	7
tapes	15/16 ips	0
	1 7/8 ips	1
	3 3/4 ips	3
	7 1/ 2 ips	7
	15 ips	5
	30 ips	2
	60 ips	4
	120 ips	8

The second character would be an alphabetic code to indicate stereophonic or monaural sound reproduction. The third character would be a numeric code to indicate the tape tracks involved in the case of tape recordings; it would be blank or dashed (-) for disc/recordings.

	CODE	TAPE TRACKS INVOLVED	
Stereophonic	S	1/8 track or 8 tracks	8
Monaural	M	1/4 track or 4 tracks	4
		1/2 track or 2 tracks	2
		full track or Single Track	1

For example, within the field for physical specification, which has a three-character limit, an entry such as - 7M - would indicate that it was a disc since no tracks are involved, that it has a playback speed of 78 rpm, and that it is a monaural recording.

For Video Materials

A three-character field should be provided to indicate physical specifications for video materials. The first character would be an alphabetic code to designate the physical nature of any audio element incorporated in the medium or accompanying the item.

		AUDIO CODE
Incorporated	Magnetic sound track	M
	Photographic (Optical) track	P
	Captions (Subtitles)	C
	No narration (Silent or only musical background)	- or U*
Accompanying	Disc (Record)	D
	Script (Guide)	S
	Taped script	T
	No accompanying verbal material	-

*For visual productions with no narration an optional use of "U" (for Universal Application) is provided since such materials have a wider subject and level application once commentary restrictions are removed. It is also realized that many motion records could have wider application if the incorporated or accompanying narration was "turned off" (and the children or teacher provided and alternative commentary) but this cannot be coded since it goes beyond the physical nature of the material to the method of presentation.

The second and third characters would be an alphabetic code to designate the physical nature of the image:

(1) to indicate whether it is positive or negative (as in the case of microfilms)
(2) to indicate whether it is colored, or monochromatic, or
(3) to indicate if the image requires regular or anamorphic projection

	IMAGE CODE
BLACK/WHITE (SEPIA)	B
COLOR	C
POSITIVE	P
NEGATIVE	N
ANAMORPHIC (cinemascope)	A

For example, within the three-character field for physical specifications an entry such as: C-C for a filmstrip would indicate that the audio element was present in the form of captions to be read and that the image was in color. The dash was a space holder and could be interpreted as indicating regular projection. A -- B entry would indicate video material with no audio element and a black and white image.

Note: Usually only one of these code letters is needed for each item. Most materials that are negative are also black and white and most that are for anamorphic projection are positive and in color. These code letters may be used in pairs if necessary, such as BN for a negative microfilm in black/white, or PC for a positive filmstrip in color, however most applications will need only one code letter with other aspects of the image being understood.

SECTION III: DEFINITIONS AND APPLICATIONS

In this section records involving the codes are defined and application of the codes are illustrated.

CHARACTER — A character is a basic unit of which all codes are composed. Characters can be alphabetic letters, numeric digits, or special symbols. A string of characters or a single character can form a unit of information.

FIELD — A field is a named unit of information -- a defined set of one or more characters. For example, the "Identification Number" is the name for this field of eleven characters: KT262004908.

If there is more than one category of information in a given field, each separate category is defined as a subfield. Within the Identification Number the media, storage, year and sequence numbers are subfields.

FIXED FIELD — A fixed field is a field whose number of characters may not exceed a specified maximum known as the fixed field length or limit. Usually the number of characters in each fixed field will not vary from record to record and each will be located in the same position in every record.

Within any machine-readable record the units of information (data elements) that may be referred to, or processed on, are located within these known (labeled) areas or fixed fields. The fixed fields below show the field limits allocated to each data element.

FS567004803	WHISKEY RUN.....(STS)	SCA	068	--NFBC	348742786	-DB
11	25	3	3	6	9	3
ID Number	Short Title (Series)	Level	Length	Prod	Content	Physical Specs.

RECORD

A record is a collection of fields which captures some data in stable form. There are records in many media for many purposes. Written records can be in books, on paper tape, on punched cards, on catalog cards, etc. Motion records can be on acetate films, on mylar video-tapes, and someday discs. The variations of media continue for audio records, pictorial records, etc.

A record that is written to catalog data about a specific item will be referred to as a unit entry or a catalog record.

UNIT ENTRY

KT2-67-004803
WHISKEY RUN (35mm filmstrip with 78rpm phonodisc)

A documentary of the Alaskan gold rush period in which the Northwest Mounted Police tamed the wild Canadian West. It was during this era of whiskey trade, Indian raids, and horse thieves that the stand taken by the governor in calling in the Mounties established the territory between Alaska and Washington as British and ultimately a province of Canada. Old prints, paintings and newspapers provide most of the scenes.

Series:	"From Sea to Sea" 7th in this series of 8
Maturity level:	Senior High School, College, and Adult.
Length:	68 frames
Producer:	National Film Board of Canada
Content areas:	348 Culture, songs folk 742 History, American, developing the West 786 History, Canadian, developing the West
Audio:	Disc recording with two songs: "Up the Hill, John" and "Minnie the Miner"; 78rpm Sepia, positive

This unit entry can also take the format of a machine record which is nothing more than the format and content of the unit entry or catalog record translated into machine-readable form (punched tabulating cards, punched paper tape, magnetic tape or disc).

SHORT TITLE

The short title is a form of the full title, part and series abbreviated to fit within a fixed field of 20 or 30 characters (columns). It is used on all tabulating cards and may be useful on confirmation notices, shipping lists, mailing labels and inventory reports. It should follow the Identification Number and in turn be followed by other descriptive element codes for use when they are desired.

A sample 80 column tabulating card showing the short title entry would be:

FS362008701STANDRD TREAT O BURN CCA35CEGH
etc.....

CATALOG NUMBER

When the Identification Number is used in a catalog (card or book form) the print/copy number may be dropped to provide the catalog number of nine (9) characters as illustrated on the request/order below.

REQUEST ORDER

A request/order is the recorded inquiry of a user of the instructional materials center or the library catalog. A user can inquire about a specific item he knows is housed in the collection that will suit his purposes or he can inquire about the possibility that some item suiting his purposes might be housed in the collection. Thus, the recorded inquiry must include either the Identification Number of the specific item (or its full title and some other known element, i.e. medium, producer, length, etc.) or the content specifications of a desired item.

COUNTY INSTRUCTIONAL MATERIALS CENTER/REQUEST CARD

ITEM:

RD2 | 65 | 0148 — Catalog number

SONG BIRDS OF MIDWEST — Title

FOR USE:

____ | ____ — Month Day

HAMILTON CENTRAL HIGH — School

_____ — Teacher

Materials will be scheduled as close to your date as possible
UNLESS you check this box ☐ for the exact date only.
Upon receipt of your confirmation you may cancel the order.

2

APPENDIX

(a brief summary of initial planning
for this publication)

NEWS ABOUT EDUCATIONAL TECHNOLOGY

From the Department of Audiovisual Instruction of the National Education Association of the United States*
1201 16th Street, N.W., Washington, D. C. 20036 Area Code 202, 234-4848, ext. 325

from: Bob Snider
Associate Executive Secretary

November 1966

DAVI Task Force Considers Computerized Cataloging and Booking of Educational Media

Present and future use of electronic data processing in cataloging and booking a wide range of educational media for schools was considered by a Task Force of 25 specialists from education, government, and industry at a Washington meeting October 27-28 convened by the NEA's Department of Audiovisual Instruction.

As a result of reports on educational projects now making use of the computer for film distribution in California, Florida, New York, and Michigan plus an analysis of more comprehensive and innovative programs about to begin, the Task Force concluded its two-day session by assigning to Work Groups the job of developing needed guidelines and tentative standards in four specific areas.

Supported in part by a gift from The Encyclopaedia Britannica Educational Corporation, the Task Force was basically concerned with information technology and its application to the more effective handling and use of educational media in schools.

*The Department of Audiovisual Instruction (DAVI) is one of 33 national organizations affiliated with the National Education Association as departments. Publications issued by departments are not policy statements of the NEA unless set by resolution.

"It is quite possible," said EBE's Wayne Howell, "that such a retrieval system will be the heart of the curriculum of the future."

Closer liaison between the field of educational media and government agencies also concerned with computerized media information seems assured as a result of the meeting which was attended by officials from the Office of Education's Educational Research Information Center, the Federal Communications Commission, the United States Information Agency, the Library of Congress, and the National Archives. A centralized source of information on all audiovisual materials available from federal agencies is now being planned, and the Library of Congress has expressed interest in a continuing dialogue with the educational media field.

The four DAVI Work Groups established to continue the work of the Task Force include Group I on Basic Premises and Development, chaired by Sidney Eboch of Ohio State University and made up of Eugene Oxhandler and Dominick Auricchio of Syracuse University; Wayne Howell, Encyclopaedia Britannica Educational Corporation; and James Gibson, National Archive and Record Service.

Group II on Coding of Materials (for booking and cataloging), chaired by Charles Bidwell of Syracuse University, is composed of W. A. Reichert, Florida State University; Glen McMurry,

University of Southern California; Jeffery Norton, McGraw-Hill Book Company; and Kay Guiles, Information Systems Office, Library of Congress. Group II is expected to report in one month at which time a coding plan will be needed for a film booking project involving 14 New York State Boards of Cooperative Educational Services.

Group III, concerned with descriptive cataloging and chaired by Ford Lemler, University of Michigan, is made up of Carolyn Whitenack, Purdue University; William Quinly, Florida State University; Charles Bollmann, Michigan State University; Bert Weekes, Syracuse University; and a representative from the Library of Congress.

Group IV, charged with the international coordination of Task Force activities and chaired by Robert Cox, formerly acting director of the Educational Media Council and now a Peace Corps executive, is made up of Wilbert Pearson, U.S. Information Agency; Anna Hyer, DAVI Executive Secretary; Fred Christen, Inter-American Educational Center; and Robert Hilliard, Federal Communications Commission.

Monograph No. 3

Another addition to the distinguished DAVI Monograph Series:

The State of Audiovisual Technology: 1961-1966

by Eleanor P. Godfrey, Bureau of Social Science Research, Inc., Washington, D.C.

This book examines in detail what a sample of school districts has made of audiovisual technology over a critical six-year period of ferment in instructional methodology. The investigation looks at the resources available, the extent to which these resources were used, factors that encourage or inhibit use, and prospects for the future.

Baseline data were obtained from 2,927 school district administrators. Two hundred and thirty-eight of these districts were surveyed in 1962 in order to establish empirical norms of teacher use of audiovisual materials. In 1964 these same 238 districts supplied information about inventory changes since 1961 and plans for 1966. The prediction of present inventory levels is constructed from the data obtained from the three surveys.

Another great problem with any technology has always been the so-called man-machine relationship, and Dr. Godfrey gives attention to this important aspect of audiovisual technology in this work.

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THE DEPARTMENT OF AUDIOVISUAL INSTRUCTION

A professional association of more than 8,000 members, DAVI is concerned with the full range of educational media and technology as it relates to the instructional process. Its members are educators - at all levels of public and private schools, colleges and universities as well as in educational programs involving religious, military, medical, industrial and government organization.

DAVI members, in all phases of education and in all parts of the world, have one thing in common: they are well informed about educational technology and its innovative applications to instruction. All members receive the monthly magazine, Audiovisual Instruction, and many subscribe (at a special membership rate) to the quarterly journal, AV Communication Review.

For more membership information and a list of publications write to:

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National Education Association
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